



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/628,405	08/01/2000	Ichiro Tanokuchi	1299-00	5642

35811 7590 09/09/2003

IP DEPARTMENT OF PIPER RUDNICK LLP  
3400 TWO LOGAN SQUARE  
18TH AND ARCH STREETS  
PHILADELPHIA, PA 19103

EXAMINER
----------

LAMB, BRENDA A

ART UNIT	PAPER NUMBER
----------	--------------

1734

DATE MAILED: 09/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The examiner maintains the objection to the originally filed specification in that the originally filed specification which fails to teach the controller is connected to maintain the jet nozzles such that they are spaced from the adjacent edge of the metal strip at a distance C which is 4 to 7 mm and maintain the relationship between distances L and C such that they satisfy the following equation:  $-20C + 20 \leq L \leq -2.5C + 45$ .

Claims 15-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 15-16 are confusing since it is unclear how the distance recited at lines 19-21 of claims 15-16 relate to distance C since distance between one or both of baffle plates and edge of the strip material has been set forth as distance C.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

Art Unit: 1734

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5-6 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 1-208441 in view of Japan 57-210966.

Japan '447 teaches the design of an apparatus comprised of the following elements: face gas wiping nozzles which extends across the width of the strip which has been lifted upwardly from a liquid bath along a jet treatment path, the face gas wiping nozzles arranged adjacent to the jet treatment path and aimed at an impingement area on front and back surfaces of the strip; a pair of baffle plates spaced from the edges of the strip material such the distance between the baffles itself or inner edge of baffle is a clearance distance, C; and edge wiping nozzles disposed between each of the baffle plates at its inner edge and adjacent an edge of the strip material, each of the edge wiping nozzles being provided with an edge wiping gas jet port positioned adjacent the gas impingent area such there is distance between L port or nozzle and each edge wiping nozzles being positioned for jetting a gas in a widthwise direction relative to the strip and parallel to each edge of the strip. Japan '441 teaches a drive means 10 for driving truck 3 for carrying the edge-wiping gas nozzles such that the nozzles are adjustable toward and away from the adjacent edge of the strip. Japan '441 teaches a drive 10 for driving the baffle plate and edge-wiping nozzle. Japan '441 shows the edge

Art Unit: 1734

wiping nozzle and baffle plate move as a unit. Japan '441 fails to teach the elements of the wiping nozzle apparatus has a defined structural relationship such that the clearance C is within the scope of claim 5 and the relationship between distance L and clearance C is maintained by a controller such that it is within the scope of claims 5-6 and 15-16. However, it would have been obvious to provide a control means for the drive means 10 in the Japan '441 hot dipping apparatus since Japan '966 teaches a control means for controlling position of the gas edge nozzle relative to edge of the strip in a hot dipping apparatus and obvious the control means for the drive means is capable of optimizing the position of the gas edge nozzle such that the clearance C and the relationship between distance L and clearance C is maintained within the scope of claims 5-6 and 15-16 to prevent problems associated with hot dipping such as clogging of the main gas jet, disclosed by Japan '966, and alternatively optimize space requirements of the apparatus. Further, although Japan '441 fails to teach the edge wiping nozzles and baffle plate are integrally fixed to each other, it would have been obvious to integrally fix the above cited elements to minimize complexity or number of units of the apparatus.

Applicant's arguments filed 6/2/03 have been fully considered but they are not persuasive.

Applicant's arguments that both Japan '966 and Japan '441 fail to teach criticality of distance C and distance L and Japan '441 and Japan '996 are non-analogous art is found to be non-persuasive. In response to applicant's argument's regarding criticality of distance C and distance L, it is noted applicant's originally filed specification fails to

teach the criticality of the distance between the edge jet nozzle and edge of the metal strip and the relationship of L and C as it applies to the edge gas jet port and edge of the metal strip. Rather applicant's originally filed specification teaches the criticality of the distance between the inner edge of the baffle plate and edge of the metal strip and the relationship of L and C as it applies to the inner edge of the baffle plate and edge of the metal strip. Further, in response to applicant's argument that Japan '441 and Japan '996 are non-analogous, as stated by the court In re Rosselet, 347 F.2d 947, 146 USPQ 183 at 186 (CCPA 1965), "the test of obviousness is not expressed suggestion of the claimed invention in any or all of the references but rather what the references taken collectively would suggest to those of ordinary skill in the art presumed to be familiar with them." Accord, In re Sheckler, 438 F.2d 999, 168 USPQ 716 (USPQ (CCPA 1971; In re Sovish, 769 F.2D 738, 226 USPQ 771 (Fed. Cir. 1985). In this case, Japan '966 is applied to teach using a control means to control the positioning of the edge wiping nozzle to control edge wiping of the strip. Japan '441 shows in Fig. 3 a gas impingement point A and shows a distance along the lifting movement of the strip between the part of the edge wiping nozzle and gas impingement point of the face wiping nozzle. Japan '441 fails to disclose the relationship between distance C and distance L. However, it would have been obvious to provide a control means for the drive means 10 in the Japan '441 hot dipping apparatus since Japan '966 teaches a control means for controlling position of the gas edge nozzle relative to edge of the strip in a hot dipping apparatus and obvious the control means for the drive means is capable of optimizing the position of the gas edge nozzle such that the clearance C and the relationship

Art Unit: 1734

between distance L and clearance C is maintained within the scope of claims 5-6 and 15-16 to prevent problems associated with hot dipping such as clogging of the main gas jet, disclosed by Japan '966, and alternatively optimize space requirements of the apparatus. Further, although Japan '441 fails to teach the edge wiping nozzles and baffle plate are integrally fixed to each other, it would have been obvious to integrally fix the above-cited elements to minimize complexity or number of units of the apparatus

Claims 1-2 are allowed.

Any inquiry concerning this communication should be directed to Brenda A. Lamb at telephone number (703) 308-2056. The examiner can normally be reached on Monday and Wednesday through Friday with alternate Tuesdays off.

B.A. Lamb/dh  
August 12, 2003

  
**BRENDA A. LAMB**  
**PRIMARY EXAMINER**